

Environmental Management Plan for establishing a Charcoal, Firewood, Fencing Poles and Furniture Production at Farm Voorwaarts No. 1029

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Document Status

Proponent	Farm Voorwaarts No. 1029
Title of the proposed Activity	Environmental Management Plan for establishing a Charcoal, Firewood, Fencing Poles and Furniture Production at Farm Voorwaarts No. 1029
Activity Type	Establishment of Charcoal, Firewood, Fencing material production and production of Furnitures
Location of the Activity	Farm Voorwaarts No. 1029, Mururani Area, Grootfontein District, Otjozondjupa Region GPS Coordinates at the Mine: 18°51'36.62" S and 18°50'57.78" E
Competent Authority	Environmental Commission (Ministry of Environment, Forestry and Tourism)
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PURPOSE OF THIS DOCUMENT

This document, Environmental Management Plan (EMP) for the establishment of charcoal, firewood, fencing poles and furniture production at Farm Voorwaarts No. 1029 presents the findings of the impact assessment with respect to issues and concerns raised during the scoping phase of the EIA. The findings are presented in the following reports:

- Scoping Report (this report), with several appendices, including the issues and response report (indicating to stakeholders where their issues have been captured)
- Environmental Management Plan (this report).

Appreciation for participation by stakeholders

Stakeholders were invited to partake in the consultation process. Various media platforms were used to engage the public on the proposed activities as per the Background Information Document (BID) attached on the annexes. Newspaper advertisements were placed in two local daily English newspapers and notice boards were placed around community notice board at Mururani Gate area and also at Farm Voorwaarts No. 1029. In addition, radio announcements were made via the local languages (NBC Oshiwambo, National Radio and OtjiHerero NBC Radio Stations) inviting community members to a Public Consultation meeting. Social Media (Facebook) was also used to engage the stakeholders. Project Background Information Documents were available from the Henties Bay Community Library. The BID was also available from the KPM Offices in Windhoek (the consultant) on request via e-mail.

PUBLIC REVIEW OF THE DRAFT ENVIRONMENTAL SCOPING REPORT

A period of three weeks (from 29th of June to 17th July 2020) was dedicated to receiving comments and inputs from the public on the proposed charcoal, firewood, fencing poles and furniture production at Farm Voorwaarts No. 1029. Copies of the BID were couriered to all registered Interested and or Affected Parties (I&APs) especially the farming

community in Otjozondjupa Region and all other registered stakeholders. In addition, the availability of the draft EIA Report was announced in the media as well as by way of letters addressed to registered key stakeholders.

OPPORTUNITIES FOR PUBLIC REVIEW

The following methods of public review of the Strategic Environmental Assessment Report were available:

- Completing the comment sheet enclosed with the reports;
- Additional written submissions;
- Comment by email or telephone;
- Comment during the public participation meeting at Mururani Gate and also at Farm Voorwaarts No. 1029 (meeting held on Friday, 26th June 2020 at 14h30).

FINAL ENVIRONMENTAL IMPACT REPORT

Comments received from stakeholders on the draft findings during the review period were assessed and are now included in this Final EIA Report.

ACRONYMS AND ABBREVIATIONS

BID	Background Information Document
ECO	Environmental Control Officer
EIA	Strategic Environmental Assessment
EMP	Environmental Management Plan
EMS	Environmental Management System
I&AP	Interested and Affected Party
KPM EC	KPM Environmental Consulting
MET	Ministry of Environment and Tourism
NGO	Non-Governmental Organization

GLOSSARY OF TERMS

Assessment - The process of collecting, organizing, analysing, interpreting and communicating information relevant to decision making.

Competent authority - means a body or person empowered under the local authority's actor a delegation made under the Pollution Prevention and Waste Management Bill to enforce the rule of law.

Cumulative Impacts - in relation to an activity, means the impact of an activity that in itself may not be significant but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area.

Evaluation – means the process of ascertaining the relative importance or significance of information, the light of people's values, preference and judgments in order to make a decision.

Environment - As defined in the Environmental Assessment Policy and Environmental Management Act - "land, water and air; all organic and inorganic matter and living organisms as well as biological diversity; the interacting natural systems that include components referred to in sub-paragraphs, the human environment insofar as it represents archaeological, aesthetic, cultural, historic, economic, paleontological or social values".

Strategic Environmental Assessment (EIA) - the process of assessment of the effects of a development on the environment.

Strategic Environmental Management Plan (SEMP) - A working document on environmental and socio-economic mitigation measures, which must be implemented by several responsible parties during all the phases of the proposed project.

Interested and Affected Party (I&AP) - any person, group of persons or organization interested in, or affected by an activity; and any organ of state that may have jurisdiction over any aspect of the activity.

Mitigate - The implementation of practical measures to reduce adverse impacts.

Proponent (Applicant) - Any person who has submitted or intends to apply for an authorization, as legislated by the National Environmental Assessment Policy, to undertake an activity or activities identified as a listed activity or listed activities; or in any other notice published by the Minister or Ministry of Environment & Tourism.

Public - Citizens who have diverse cultural, educational, political and socio-economic characteristics. The public is not a homogeneous and unified group of people with a set of agreed common interests and aims. There is no single public. There are a number of public, some of whom may emerge at any time during the process depending on their particular concerns and the issues involved.

Scoping Process - the process of identifying: issues that will be relevant for consideration of the application; the potential environmental impacts of the proposed activity; and alternatives to the proposed activity that are feasible and reasonable.

Significant effect/Impact - means an impact that by its magnitude, duration, intensity or probability of occurrence may have a notable effect on one or more aspects of the environment.

Stakeholders - A sub-group of the public whose interests may be positively or negatively affected by a proposal or activity and/or who are concerned with a proposal or activity and its consequences. The term, therefore, includes the proponent, authorities (both the lead authority and other authorities) and all interested and affected parties (I&APs). The principle that environmental consultants and stakeholder engagement practitioners should be independent and unbiased excludes these groups from being considered stakeholders.

Stakeholder engagement - The process of engagement between stakeholders (the proponent, authorities and I&APs) during the planning, assessment, implementation and/or management of proposals or activities. The level of stakeholder engagement varies depending on the nature of the proposal or activity as well as the level of commitment by stakeholders to the process. Stakeholder engagement can, therefore, be described by a spectrum or continuum of increasing levels of engagement in the decision-making process. The term is considered to be more appropriate than the term "public participation".

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Abbreviations

Abbreviations	Meaning
EIA	Strategic Environmental Assessment
EMP	Environmental Management Plan
ER	Employee Representative
ECO	Environmental Control Officer
I&AP	Interested and Affected Parties

• INTRODUCTION

Farm Voorwaarts No. 1029 is farming with both crops and livestock as well as some wildlife. The proponent intends to utilise a portion of the farm which is currently not used to turn it into an agricultural institution training agricultural technicians to serve the farming community in Otjozondjupa Region and Namibia at large. The proposed institution, which is the first of its kind in the Otjozondjupa Region, will cater for about 3000 students and the number is expected to gradually increase. The major focus of the proposed university is on agriculture, research and innovation. The proposed activity for the university which is already cleared by the Ministry of Environment, Forestry and Tourism (MEFT) will include the construction of the administration block, accommodation facilities, sports field, lecture halls (theatre) and a veterinary clinic /school. Road networks, powerlines and sewerage facilities will also form part of this development and further assessment may be required once the exact details of those amenities are finalized.

The clearing of the proposed site (which is already covered in the first application for Environmental Clearance Certificate) and which is already cleared, will generate a lot of useful wood materials. The proponent have thus decided to turn those by products into wood for both own use but also selling the excess to the local community and elsewhere in Namibian where wood is needed. The second option is to produce charcoal for commercial purpose also for sale in Namibia. The third opportunity is to produce fencing poles for own use around the fence for the proposed university, around the farm and also the remaining surplus for sale. The forth option is to turn the wood into furnitures for the university and also the surplus for sale to educational institutions i.e. schools etc.

The development of an EMP is a requirement for any EIA project as per Namibia's Environmental Management Act (7 of 2007). Therefore, this EMP is a legal document that

must accompany the EIA Report before an Environmental Clearance is issued. The main purpose of this SEMP is to:

- Minimize adverse impacts on the environment;
- Protect the environmental quality of the site;
- Meet the requirements of all national and local legislations;
- Outline guidelines for construction of services and operational phase of the project.
- Provide detailed specifications (table 2) for the management and mitigation of activities that have the potential to impact negatively on the environment.

This EMP describes the mitigation and monitoring measures to be implemented during the following phases of these developments:

- **Construction** – the period during which the services infrastructure will be constructed to service the various infrastructures for the proposed institution;
- **Clearing of the site** – the period when the contractor will be clearing the site for construction of the university buildings.
- **Cutting down of trees** – the stage when the contractor cut down some trees that should make way new buildings.

• **RESPONSIBILITIES**

The responsibility for the implementation of the EMP ultimately lies with the Farm Voorwaarts No. 1029 (the Developer) and their appointed contractor, who will be responsible clearing the site and construction of the new buildings. The implementation of the EMP requires the involvement of several key individuals, each fulfilling a different but vital role to ensure sound environmental management during each phase of these developments.

The Developer should appoint an Employer's Representative (ER) to oversee all aspects of these developments for all development phases (including all contracts for work

outsourced). The Developer may decide to assign this role to one person for the full duration of these developments, or may assign an ER to each of the development phases – i.e. one for the Planning and Design Phase, one for the Construction Phase (including site clearing) and one for the Operational and Maintenance Phase. The ER will in turn appoint an Environmental Control Officer (ECO) to oversee the implementation of the whole EMP during the Construction and Operation and Maintenance Phases. Again, the ER (and/or the Developer) may decide to assign this role to one person for both phases, or may assign a different ECO for each phase – i.e. one for the Construction Phase and another for the Operation and Maintenance Phase. The following positions and their respective responsibilities are outlined below:

- Employer's Representative;
- Environmental Control Officer; and
- Contractor (Construction and Operations and Maintenance).

.1. Employer's Representative

The ER is appointed by the Developer to manage all contracts for work/services that are outsourced during all development phases. Any official communication regarding work agreements is delivered through this person. The ER should with the commencement of the project appoint a competent ECO who will represent the Developer on-site.

During the Planning and Design and Construction Tender Preparation Phase, the ER will have the following responsibilities regarding the implementation of this SEMP:

- Ensuring that the necessary legal authorizations have been obtained (see Table 1);
- Developing, managing implementation of and maintaining all Development Guidelines;
- Ensure that the management requirements included in Table 2 inform the planning and design of the relevant infrastructure developments (i.e. that these

requirements are considered during the Planning and Design Phase not as an afterthought); and

- Ensure that the management requirements included in Table 2 inform the preparation of tender documents for the construction of the relevant infrastructure developments.

During the Site Establishment and Clearing Phase the ER shall assist the ECO where necessary and will have the following responsibilities regarding the implementation of this EMP:

- Ensuring that the necessary legal authorisations and permits (see Table 1) have been obtained by the Contractor;
- Assisting the Contractor in finding environmentally responsible solutions to problems with input from the ECO where necessary;
- Ordering the removal of individuals and/or equipment not complying with the EMP;
- Issuing fines for transgression of site rules and penalties for contravention of the EMP; and
- Providing input into the ECO's ongoing internal review of the EMP. This review report should be submitted on a monthly basis to the Developer.

Theme	Legislation Instrument	Management Requirements
Archaeology	National Heritage Act 27 of 2004	All protected heritage resources (e.g. human remains etc.) discovered, need to be reported immediately to the National Heritage Council (NHC) and require a permit from the NHC before they may be relocated.
Environmental	Environmental Management Act (EMA) 7 of 2007 EIA Regulations (EIAR) (GN) No. 28/2007 (GG No. 4878)	The amendment, transfer or renewal of the Environmental Clearance Certificate (ECC) (EMA S39-42; EIAR S19 & 20). Amendments to this EMP will require an amendment of the ECC for these developments.
	"List of activities that may not be undertaken without ECC" GG No. 4878 GN No. 29	Any activities listed in this listing notice require an ECC and hence an Environmental Assessment.
Labour	Labour Act 11 of 2007 Health and Safety Regulations (HSR) GN 156/1997 (GG 1617).	Adhere to all applicable provisions of the Labour Act and the Health and Safety regulations.
Roads	Roads Ordinance 17	

		<ul style="list-style-type: none"> • Width of proclaimed roads and road reserve boundaries (S3.1) • Control of traffic on urban trunk and main roads (S27.1) • Rails, tracks, bridges, wires, cables, subways or culverts across or under proclaimed roads (S36.1) • Infringements and obstructions on and interference with proclaimed roads. (S37.1) • Distance from proclaimed roads at which fences are erected (S38)
Water	Water Act 54 of 1956	Section 21 details provisions relating to effluent discharge permits.
	Water Quality Guidelines for Drinking Water and Waste Water Treatment	Details specific quantities in terms of water quality determinants, which waste water should be treated to before being discharged into the environment

Table 1: Relevant guidelines and legislated permit requirements

.2. Environmental Control Officer (ECO)

The ECO should be a competent person appointed by the ER. The ECO is the Developer's on-site representative primarily responsible for the monitoring and review of on-site environmental management and implementation of the EMP by the Contractor. If no ECO is appointed the duties of the ECO fall upon the ER.

During the Site Establishment and Site Clearance Phase the ECO's duties include the following:

- Assisting the ER in ensuring that the necessary legal authorisations have been obtained;
- Maintaining open and direct lines of communication between the ER, Developer, the Construction and/or Operations and Maintenance Contractor, and Interested and Affected Parties (I&APs) with regard to this EMP and matters incidental thereto;
- Monthly site inspection of all construction and/or infrastructure maintenance areas with regard to compliance with this EMP;

- Monitor and verify adherence to the EMP (audit the implementation of the EMP) and verify that environmental impacts are kept to a minimum;
- Taking appropriate action if the specifications of the EMP are not adhered to;
- Assisting the Contractor in finding environmentally responsible solutions to problems;
- Advising on the removal of person(s) and/or equipment not complying with the specifications of the EMP in consultation with the ER;
- Recommending the issuing of fines for transgressions of site rules and penalties for contraventions of the EMP; and
- Undertaking an annual review of the EMP.

.3. Contractor (Construction and Operations and Maintenance)

The Contractor is responsible for the implementation of the EMP, on-site monitoring and evaluation of the EMP. It is envisaged that various contractors might be appointed at various periods for various tasks throughout the life cycle of the site establishment and site clearing of this project. In order to ensure sound environmental management, the relevant sections of this EMP should be included in all contracts of work outsourced thus legally binding all appointed contractors and sub-contractors. All contractors shall ensure that adequate environmental awareness training of senior site personnel takes place and that all construction workers and newcomers receive an induction presentation on the importance and implications of the EMP. The presentation shall be conducted, as far as is possible, in the employees' language of choice.

The Contractor should keep records of all environmental training sessions, including names, dates and the information presented.

SUMMARY OF ENVIRONMENTAL IMPACTS & PROPOSED MITIGATION MEASURES

.4. Construction Tender Preparation

The management requirements described below should be consulted and carried out when the construction tender documents for the construction of the agricultural university infrastructure are prepared.

Aspect	Management Requirements
EMP implementation	<p>Relevant sections of this EMP should be included in the tender documents for all development so that tenderers can make provision for the implementation of the EMP:</p> <ul style="list-style-type: none"> • Construction of services infrastructure • Maintenance of services infrastructure
Financial provision	<ul style="list-style-type: none"> • Financial provision for the compilation of a Waste Management Plan should be included as a cost item within tenders concerning the construction and/or maintenance of services infrastructure. • Financial provision for topsoil management and the rehabilitation of exhausted borrow pits should be included as a cost item within construction tender documents. • Financial provision for the co-opting of a health officer from the Ministry of Health and Social Services to facilitate HIV/AIDS and TB education programmes periodically on site during the construction phase should be included as a cost item within construction tender documents. • Financial provision for the facilitation of an induction programme for both senior, temporary construction personnel as well as subcontractors and associated personnel should be included as a cost item within tenders concerning the construction and/or maintenance of services infrastructure. • Financial provision for the compilation of a Tree Management Plan should be included as a cost item within construction tender documents. • Financial provision for the drafting of a Communication Plan should be included as a cost item within construction tender documents.
Recruitment	<ul style="list-style-type: none"> • Provisions designed to maximise the use of local labour should be included within tender documents concerning the construction and/or maintenance of services infrastructure. • A provision stating that all unskilled labour should be sourced from local communities should be included within tenders concerning the construction and/or maintenance of services infrastructure. • Specific recruitment procedures ensuring qualified local companies enjoy preference during tender adjudication should be included within tenders concerning the construction and/or maintenance of services infrastructure. • Provisions promoting gender equality pertaining to recruitment should be included within tender documents concerning the construction and/or maintenance of services infrastructure. • Women should be given preference for certain unskilled jobs (e.g. flag bearers).

Table 2: Construction Tender Preparation Requirements

.5. Site Establishment, Site Clearing and Construction Phase

Table 2 below provides mitigation measures for the various environmental aspects identified in the EIA report.

Aspect Description	Mitigation Measure	Responsibility
Aesthetic (Change in landscape) / Sense of place	<p>The proponent to ensure that most trees and plant species are conserved as much as possible.</p> <ul style="list-style-type: none"> The architectural drawings should incorporate most of the big trees and where not possible, trees cut down should be replaced with similar species. 	Farm Voorwaarts No. 1029
Employment Creation (Influx of job seekers)	<p>The Contractor should compile a formal recruitment process including the following provisions as a minimum:</p> <ul style="list-style-type: none"> Recruitment should not take place at construction sites. Ensure that all sub-contractors are aware of recommended recruitment procedures and discourage any recruitment of labour outside the agreed upon process. Contractors should give preference in terms of recruitment of sub-contractors and individual labourers to those who are qualified and from the project area and only then look to surrounding towns. Clearly explain to all job-seekers the terms and conditions of their respective employment contracts (e.g. period of employment etc.) – make use of interpreters where necessary. 	Contractor
Health & Safety related impacts	<ul style="list-style-type: none"> No human waste should come in contact with open soil. Every construction site should have at least one portable toilet. No open fires may be made anywhere on-site during the construction period. Heating and cooking facilities (where necessary) should be provided by the Contractor. 	Contractor
Noise and Vibration	<ul style="list-style-type: none"> All workers on site must be equipped with ear plugs to be used when the noise becomes unbearable. Switch off machines that are not used. Construction activities which known to generate vibration should be scheduled for day periods and not at night. Duration of vibration should be kept as short as possible. Proper maintenance including routine servicing of equipment 	Safety Officer / ECO
Dust	<ul style="list-style-type: none"> Equip all the workers exposed to dust with dust masks; Spray the areas that are mostly affected with water to minimize dust; Minimize activities that can generate dust during windy days; Limit the speed within the whole construction area to a maximum of 40 km/h; Dust will significantly be reduced if excavation and land clearing is carried out after it has rained and the soil is wet. 	Site Manager and Environmental Control Officer

Aspect Description	Mitigation Measure	Responsibility
Conservation and Vegetation (Soil Erosion)	<ul style="list-style-type: none"> • The layout and building design should incorporate existing trees (a “tree” is defined as an indigenous woody perennial plant with a trunk diameter ≥ 150 mm). • The Contractor/investor should compile a Tree Management Plan which should include the following as a minimum: <ul style="list-style-type: none"> - Trees (as defined above) if not already accounted for in an existing GIS, should be surveyed, co-ordinates/location incorporated into the Contractor’s GIS, marked with paint (or other means so as to be readily visible) and protected; - Trees, which are impossible to conserve, need to be identified and their location recorded on a map; - The Contractor should apply to the local authority for a permit to remove these trees. - A list should be compiled of all trees to be removed detailing the erf on which they are located, the species as well as which trees will be planted to replace these. The nursery where these trees will be sourced from should also be included; - Each tree that is removed needs to be replaced after construction; • Only a limited width +/- 5 m on the side of roads may be partially cleared of vegetation. 	Contractor

Table 3: Construction Phase Mitigation Measures

.1. Operational Phase

Aspect Description	Mitigation Measure	Responsibility
Traffic Congestion	<ul style="list-style-type: none"> • Introduce traffic calming measures on strategic routes. • Encourage heavy traffic to avoid residential areas and the CBD 	Contractor
Effluent Generation	<ul style="list-style-type: none"> • Sewage should not be discharged directly onto open soil. All sewage must be removed regularly and disposed of at a recognised (municipal) sewage treatment facility. • The water collected from wash basins and showers (grey water), should not be left standing for long periods of time as this promotes parasite and bacterial proliferation. • Grey water should be recycled: <ul style="list-style-type: none"> - Used for dust suppression; - Used to water a vegetable garden, or to support a small nursery; - Used to clean equipment. • Grey water that is not recycled should be removed along with sewage on a regular basis. 	Contractor
Impact on Water resources	<ul style="list-style-type: none"> • All accommodation establishments provide awareness materials to their guests; 	Contractor

Aspect Description	Mitigation Measure	Responsibility
	<ul style="list-style-type: none"> • The municipality reinforces water awareness by including a message relating to water saving on their monthly municipal accounts. • The sustainable yields of the project boreholes should be determined during the acquirer test (pumping test) by a qualified and experienced hydrogeologist who will then recommend a safe abstraction yield for the project site to the proponent. • Groundwater should be abstracted and used efficiently by limiting it to certain activities such as ablution facilities, drinking and cooling site equipment (if required). • The developer/contractor should strictly adhere to the abstraction volumes given in their abstraction permit, and where possible, use less water than the allocated volume in the water permit. • The proponent should raise awareness to their workers on water savings measures and include the reality of climate change and its impact on groundwater recharge, and eventual effect on the water supply in the area. • Re-use of the water used on some of the project activities should be encouraged. 	
Waste Generation	<ul style="list-style-type: none"> • The construction site should be kept tidy at all times. All domestic and general construction waste produced on a daily basis should be cleaned and contained daily. • No waste may be buried or burned. • Waste containers (bins) should be emptied regularly and removed from site to a recognised (municipal) waste disposal site. All recyclable waste needs to be taken to the nearest recycling depot. • A sufficient number of separate bins for hazardous and domestic/general waste must be provided on site. These should be clearly marked as such. • Construction labourers should be sensitised to dispose of waste in a responsible manner and not to litter. • No waste may remain on site after the completion of the project. • Irrigation should be designed and managed for zero or minimum deep percolation during the growing seasons to keep fertilizer and pesticides in the root zone for a time being. • Conduct water resources pollution awareness for all workers involved in both project phase should be implemented. • Waste disposal sites should be lined so that soluble substances from the wastes do not leach into groundwater systems when it rains. • All run-off materials such as hydrocarbons, waste water and other potential pollutants associated with the project should be contained on site in designated containers and disposed of at nearby approved sites in accordance to the municipal waste discharge standards, so that they do not reach water bodies (systems). 	Contractor

Aspect Description	Mitigation Measure	Responsibility
Increase Poaching	Education Public Awareness Policing	Farm Voorwaarts No. 1029
Soil Contamination	<ul style="list-style-type: none"> • All heavy construction vehicles and equipment on site should be provided with a drip tray. <ul style="list-style-type: none"> - Drip trays are to be transported with vehicles wherever they go. - Drip trays should be cleaned daily and spillage handled, stored and disposed of as hazardous waste. • All heavy construction vehicles should be maintained regularly to prevent oil leakages. • Maintenance and washing of construction vehicles should be take place only at a designated workshop area. <ul style="list-style-type: none"> - The workshop area should be lined with concrete and sloped so as to collect and detain all run-off. - The workshop should have an oil-water separator for collected run-off from washing. • Spilled cement and/or concrete (wet or dry) should be treated as hazardous waste and disposed of by the end of each day in the appropriate hazardous waste containers. • All hazardous substances (e.g. fuel etc.) or chemicals should be stored in a specific location on an impermeable surface that is bunded. • Spill control preventative measures should be put in place to manage soil contamination, thus minimising the contamination from reaching water bodies during irrigation or run-offs. 	Contractor

Table 4: Operational Phase Mitigation Measures

.2. Decommissioning Phase

The permanent closure of these developments is not envisaged. However, in the event that they are decommissioned the following mitigation measures should be adhered to.

Aspect Description	Mitigation Measure	Responsibility
Construction related activities	<ul style="list-style-type: none"> • Many of the mitigation measures prescribed for construction activity for these developments (see construction phase mitigation measures) would be applicable to some of the decommissioning activities. These should be adhered to where applicable. 	Contractor
Rehabilitation	<ul style="list-style-type: none"> • Upon completion of the construction phase consultations should be held with the local community/property owner(s) regarding the post-construction use of exhausted borrow pits. • In the event that no post-construction uses are requested, all exhausted borrow pits and excavated areas need to be rehabilitated as follows: 	Contractor

Aspect Description	Mitigation Measure	Responsibility
	<ul style="list-style-type: none"> - Borrow pits and excavated areas may only be backfilled with clean or inert fill. No material of hazardous nature (e.g. sand removed with an oil spill) may be dumped as backfill. - Rehabilitated borrow pits and excavated areas need to match the contours of the existing landscape. - The rehabilitated area should not be higher (or lower) than nearby drainage channels. This ensures the efficiency of revegetation and reduces the chances of potential erosion. - Topsoil is to be spread across borrow pit and excavated areas evenly. - Deep ripping is required, not just simple scarification, so as to enable rip lines to hold water after heavy rainfall. - Ripping should be done along slopes, not up and down a slope which could lead to enhanced erosion. Rehabilitated borrow pits need to remain fenced-off after the decommissioning of the project to prevent livestock from denuding the newly established vegetation on the area. - 	

Table 5: Decommissioning Phase Mitigation Measures

• **CONCLUSION AND RECOMMENDATIONS**

Various impacts of activities that are likely to happen during clearance of site at Farm Voorwaarts No. 1029 were identified. It is acknowledged that implementation of some measures would require substantial time and / or financial resources, while others are achievable within operational norms. The Proponent and their contractors can thus decide on the prioritization of mitigation measures according to their resource capacity within the institution.

The Environmental Management Plan is a leaving document and while care has been taken to ensure that all identified issues have been covered, there might be some issues that might arise as a result of a new agricultural technology that might be used. Therefore, it will be a responsibility of the proponent to ensure that new issues arising during implementation are properly assessed and mitigation measures are put in place.

The SEMP is a legal document which the proponent should familiarise with and ensure that his/her contractors adheres to all provisions and mitigation measures proposed.